

# **What's New In Visual Basic® .NET?**

**Chris Dias  
Group Program Manager  
Visual Basic .NET  
Microsoft Corporation**

**5-223**

Microsoft®  
**PDC** 2000  
Professional Developers Conference

Microsoft®  
**.net**

the defining

***point***

# Agenda

- **Design goals for Visual Basic .NET**
- **Visual Basic, Visual InterDev®, and Visual Studio® .NET**
- **Building the next generation of applications**
- **The Basic language and compiler**

# **Design Goals Of Visual Basic .NET**

- **Rapid .NET application creation**
- **Deliver the features you requested**
- **Modernize and simplify the Basic language**
- **Provide full access to the .NET Frameworks**

# **Visual Studio**

**One tool for all languages**

- **Visual InterDev is built in to Visual Studio .NET**
  - **WYSIWYG Web Page, Style Sheet Editors**
  - **Web Projects**
- **Visual Basic .NET brings RAD to Visual Studio .NET**
- **Visual Studio .NET delivers**
  - **A common, file based project system**
  - **Cross-language, cross-machine, end-to-end debugging**
  - **Enhanced productivity for every developer**

# The .NET Framework

Visual Basic .NET apps are built on the Framework

## System.Web

Web Services

Web Forms

ASP+ Application Services

## System.WinForms

Controls

Drawing

Windows Application Services

## System Base Classes

ADO+

XML

SQL

Threading

IO

Net

Security

ServiceProcess

## Common Language Runtime

Memory Mgmt

Type System

Lifetime



# **Web Forms And ASP+**

**Simplified development of  
scalable Web applications**

- **Application services in ASP+**
  - **Authentication, Caching, State Services**
- **The best of Web Classes and ASP**
- **Web Forms separates UI and code**
- **Familiar development model**
- **Full, compiled Visual Basic language**
- **Target any browser on any**

# **Win Forms**

**A powerful framework for writing Windows applications**

- **Visual inheritance**
- **Secure and low TCO**
- **Integrates with Web Services**
- **RAD control creation**
- **Accessibility support built in**
- **In-place menu editor!**



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# *demo*

**Win Forms**

# **RAD Web Services**

**The third generation of code reuse**

- **VBXs, COM, now Web Services**
- **Creation is easy!**
  - **“WebMethod” Subs and Functions**
  - **Visual Studio automatically publishes to the Web**
- **Drag and drop consumption**
  - **Discovery via Server Explorer, Web References**
  - **As simple as calling a method**

# **RAD For The Server**

**Easily build scalable server components**

- **Visually compose business objects**
- **Manage enterprise wide *programmer* resources**
- **Scalable, transacted, cross-machine, and cross-platform messaging**
- **Efficient scheduling**
- **Configure and diagnose your *production* applications**

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# *demo*

**RAD For the Server**

# Data: ADO+

Cross-platform, scalable,  
multi-tier data access

- Scalability, interoperability *by default*
- Datasets are
  - Visually designed or imported
  - Disconnected and move between tiers
  - Persisted and remoted as XML
- Program directly against objects
- Full programmatic control over

# **XML**

## **The universal self describing language**

- **XML enables application integration**
- **The tool produces and consumes XML**
  - **Datasets, Object Persistence, Web Services**
- **Visual Basic .NET makes XML easy**
  - **Visually define the schema (XSD)**
  - **Automatic schema inference**



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# *demo*

## **Data Bound Web Forms**

# **The Basic Language**

**The language you already know  
for building .NET applications**

- **Modernized**
  - Fully Object Oriented
  - Structured exception handling
  - Cross-language inheritance, interoperability
- **Powerful**
  - Free threading, OO function pointers
- **Simplified and Consistent**
  - “Option Strict”, one type of

# Visual Basic Command Line Compiler

Robust tools suitable for build labs

- **VBC gives you total control**
- **Inputs**
  - Source and resource files
  - Response files
- **VBC does not process project files**
  - SDK command line utilities complete functionality
  - Or, use “devenv /build”
- **Run “vbc /?” for help**

# Deployment

## RAD distribution of .NET applications

- **Windows® Installer technologies**
- **Deploy N-Tier applications**
  - Custom installers for server resources
  - Web applications deploy to Web server
- **Distribute secure Win32® applications**
- **XCOPY**
- **No restarting of**

# Opening Visual Basic 6.0 Projects In Visual Basic .NET

- Project conversion wizard
  - Copies your Visual Basic 6.0 project
  - Migrates most technologies
  - It's not on the PDC CD
- Some code needs to be rewritten
  - "TODO" comments inserted into code
  - Report generated

# Summary

- **Visual Basic .NET delivers on what you asked for!**
- **Full access to the .NET Framework**
- **Your skills and investments will move forward**
- **Visual Basic is ready for a whole new era in application development**



# Questions?

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# **Related Sessions And References**

- **5-326 OO Programming in Visual Basic .NET**
- **4-213, 4-214 Introduction to ASP+**
- **2-233 How to use ADO+**
- **5-314 Data and XML in Visual Studio .NET**
- **1-213 Introduction to Win Forms**
- **1-421 Advanced Win Forms**

Where do **you** want to go today?

**Microsoft**